

CLAIMS

1/ A subcutaneous valve for the treatment of hydrocephalus, said valve having an opening pressure that can be adjusted non-invasively from the outside, the valve comprising a valve body presenting an internal chamber having a cylindrical side wall, an inlet duct and an outlet duct for cerebrospinal fluid, both ducts opening out in the side wall of said chamber and being suitable for connection respectively to an ventricular catheter and to a drainage catheter for said fluid, a valve member, such as ball, mounted on a seat at the inside end of said inlet duct, a curved spring blade fitting closely against the side wall of said chamber and urging the ball against its seat, a magnetic moving member movable in rotation about an axis X-X' under control from outside the valve, and means for locking said moving member in a determined position, the length of the active portion of the spring blade acting on the valve member being determined by the position of said moving member, wherein said moving member is constituted by a resilient flexible arcuate blade fitting closely to the cylindrical inside wall of said chamber over at least a fraction of the circumference thereof, while exerting pressure thereon, said arcuate blade being shaped so as to avoid impeding the flow of fluid through said chamber into the outlet duct.

2/ A subcutaneous valve according to claim 1, wherein one of the ends of the spring blade is fixed to the cylindrical wall of said chamber, its other end being free, and wherein one of the ends of the arcuate blade can slide over the inside face of said spring blade, bearing thereagainst in order to exert pressure thereon.

3/ A subcutaneous valve according to claim 1, wherein one of the ends of the spring blade is fixed to one of the

ends of the arcuate blade, the other end of the spring blade being free.

4/ A subcutaneous valve according to claim 1, wherein the
5 arcuate blade has an opening for allowing the fluid that
is inside the internal chamber to pass towards the outlet
duct.

5/ A subcutaneous valve according to claim 1, wherein the
10 spring blade occupies at least one-third of the inside
circumference of said chamber.

6/ A subcutaneous valve according to claim 1, wherein the
15 means for locking the moving member comprise at least two
detents suitable for being received in at least two
corresponding cavities, said detents being disposed
diametrically opposite each other on the outside face of
the arcuate blade and the corresponding cavities being
formed in the inside side wall of said chamber, or vice
20 versa.

7/ A subcutaneous valve according to claim 1, wherein the
arcuate blade carries two micromagnets on its inside
face, the micromagnets being fixed to respective ends of
25 the arcuate blade on opposite sides of the vertical axis
of rotation X-X' and themselves being disposed vertically
so that they have respective same-sign poles lying in a
common plane and facing upwards.

8/ A subcutaneous valve according to claim 1, wherein the
30 arcuate blade carries two micromagnets on its inside
face, the micromagnets being fixed to respective ends of
the arcuate blade on opposite sides of the vertical axis
of rotation X-X' and themselves being disposed vertically
35 so that they have respective opposite-sign poles lying in
a common plane and facing upwards.

9/ A magnetic device for externally adjusting the subcutaneous valve according to claim 7, the device comprising two magnets embedded in a resin disk and disposed in such a manner that their respective same-sign poles lie in a common plane and face downwards, being of opposite sign to the sign of the poles of the micromagnets of the arcuate blade.

10/ A magnetic device for externally adjusting the subcutaneous valve according to claim 8, the device comprising two magnets embedded in a resin disk and disposed in such a manner that their respective opposite-sign poles lie in a common plane and face downwards, being of opposite signs to the signs of the poles of the micromagnets of the arcuate blade.

11/ A device for externally identifying the position of the arcuate blade by using a compass having a non-magnetic needle.

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